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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,424	07/30/2002	Jean-Marc Suau	220640US0PCT	1485
22850	7590	11/17/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER SASTRI, SATYA B	
			ART UNIT 1713	PAPER NUMBER

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/070,424

Applicant(s)

SUAU ET AL.

Examiner

Satya B Sastri

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12, 19 and 21-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 31-34 is/are allowed.
- 6) ☒ Claim(s) 9-12, 19, 21-30 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/30/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This Office Action is in response to amendment filed on Sept. 30, 2004. Claims 1-12, 19 and 21-35 are now pending in the application.
2. In view of the amendment and arguments presented, rejection of claims 1,3,4,6-12, 19, 24-27, 32-35 under 35 U.S.C. 103(a) as being unpatentable over McCallum III et al (U.S. 5,866,664) is withdrawn. Furthermore, new grounds of rejection are introduced in this action and allowability indicated earlier for claims 21-23, 28-31 is withdrawn.

### ***Claim Rejections - 35 USC § 102 and 103***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. *Claims 9-12, 19, 21, 22, 23, 30 and 35* are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ergaz et al (US 5,736,601).

Prior art to Ergaz et al. discloses **grinding or dispersing agent** based on (co)polymers resulting from monomers comprising **acid groups** that are **partially or completely neutralized** by neutralizing agents containing **magnesium and sodium** ions (abstract). The **molecular weight** of the copolymers may range between **1,000-10,000 g/mol** (column 4, lines 61-65). Working examples include **polyacrylates** that are **totally neutralized** by **sodium/calcium or sodium/magnesium** (column 6, lines 10-30). The grinding aid agent may be added to the mixture formed by the **aqueous suspension of mineral substances in paper coating paint** industries (column 5, lines 41-55). Even though the method of polymerization includes phosphorous acid or its salt, the product as claimed is neutralized and a reasonable basis exists to believe that the neutralized polymer reads on prior art neutralized polymers. Where product by process claims are rejected over a prior art product that appears to be the same, the burden is shifted to applicants to establish an unobvious difference, even if the production processes are different. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983). Furthermore, the patentability of a product claim rests on the product formed and not on the method by which it is produced. In re Thorpe, 227, USPQ 984 (Fed. Cir. 1985).

6. *Claims 21-30* are rejected under 35 U.S.C. 103(a) as being unpatentable over Ergaz et al. (US 5,736,601) in view of Ergaz et al. (US 5,891,972).

The prior art to Ergaz '601 is elaborated above in paragraph 5 above and is incorporated herein by reference.

The difference between the prior art and the instant invention is that the instant invention discloses processes of using the polycarylate polymer neutralized by divalent and monovalent cations in a variety of applications.

The prior art to Ergaz '972 concerns water soluble poly(meth)acrylates and their uses. More specifically, this prior art teaches the use of such polymers as milling agents or dispersants in aqueous suspensions of mineral materials, as sequestering agents, as fluidifying agents in drilling fluids, as stabilizers for suspensions of zeolites etc (column 1, lines 20-48). The secondary reference is in an analogous art and expressly teaches the various uses of homopolymers and/or copolymers of acrylic acid salts as claimed in the instant invention. Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to use polyacrylate based grinding agents of Ergaz '061 in the applications taught by Ergaz '972 and thereby obtain the present invention.

*Allowable Subject Matter*

7. *Claims 1-8, 31-34* are allowed.

The instant claims relate to a method of making homopolymers or copolymers by polymerizing the monomers in the presence of phosphorous acid and/or it's salts or sodium hypophosphite wherein neutralization of monomers occurs during polymerization by continuous addition of a monovalent base followed by addition of a divalent base. The prior art does not teach or suggest the instantly claimed method of making the (co)polymers.

*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri at (571) 212 1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (571) 212 1114.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
SATYA SASTRI

November 3, 2004

TATYANA ZALUKAEVA  
PRIMARY EXAMINER

